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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,001	08/29/2003	Barry Sandrew	LF-P0004	2000
36067 7590 06/05/2007 DALINA LAW GROUP, P.C. 7910 IVANHOE AVE. #325 LA JOLLA, CA 92037			EXAMINER KAU, STEVEN Y	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 06/05/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/605,001

**Applicant(s)**

SANDREW, BARRY

**Examiner**

Steven Kau

**Art Unit**

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Information Disclosure Statement*

1. There is no Information Disclosure Statement submitted (IDS) by the applicants.  
Therefore, no IDS is under consideration.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12-14 are drawn to an image enhancing system comprising selecting a region from base color and injection color function, associating first and second luminance value to the functions; selecting and applying a pattern function to a region for color enhancement.

Claim 12 is recited as "A system for enhancing an image comprising: means for selecting at least one base color function for a region of an image; means for selecting at least one injection color function for said region; means for associating a first luminance value and a first luminance range with said at least one base color function; means for associating a second luminance value and a second luminance range with said at least one injection color function; means for selecting a pattern function for said at least one injection color function; and, means for applying said at least one injection

color function using said at least one pattern function mixed with said at least one base color function to said region of said image for each luminance value within said region" (emphasis added).

Applicant invokes 112 6<sup>th</sup> "means-plus function" in claims 12-14. However, applicant's disclosure does not provide any detail structural information for the means-plus function. Without defining the structure for means-plus functions, one skilled in the art would not be able to understand what structure will perform for the recited function. Therefore any means that perform the equivalent functionality will be reasonable utilized by one of ordinary skill in the art. See MPEP Section 2181.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prater (US 5,867,169) in view of Knoll (US 6,606,166) and further in view of Hamburg (US 7,136,075).

With regard to claim 1, Prater discloses a method and apparatus for manipulating color value, in that he teaches, a method of enhancing an image comprising: selecting at least one base color function {e.g. a HSY color data is converted into a second color

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data format} (col 6, lines 34-44) for a region of an image (Figure 5, col 3, lines 64-67 & col 4, lines 1-20); selecting at least one injection color function {e.g. transforming RGB color data into HSY color data} (col 9, lines 60-67) for said region (Figure 5, col 3, lines 64-67 & col 4, lines 1-20); associating a first luminance value and a first luminance range with said at least one base color function (col 8, lines 47-65); associating a second luminance value and a second luminance range with said at least one injection color function {e.g. luminance can be calculated from RGB values} (col 5, lines 17-20).

Prater differs from claim 1, in that he does not teach selecting at least one pattern function for said at least one injection color function and applying said at least one injection color function using said at least one pattern function mixed with said at least one base color function to said region of said image for each luminance value within said region.

Knoll discloses a method for pattern dithering, in that he teaches selecting at least one pattern function for said at least one injection color function (col 3, lines 59-67); and, applying said at least one injection color function using said at least one pattern function mixed with said at least one base color function to said region of said image for each luminance value within said region (col 5, lines 55-67 & col 6, lines 1-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Prater to include pattern function and applying said at least one injection color function using said at least one pattern function mixed with said at least one base color function to said region of said image for each

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luminance value within said region taught by Knoll to allow target palette to have arbitrary structure and to avoid neighborhood effects of other target pixels (col 1, lines 64-67 & col 2, lines 1-10).

With regard to claim 2, Prater teaches that selecting an arithmetic mode for said at least one injection color function {e.g. complement of one of the primary colors} (col 3, lines 51-62).

With regard to claim 3, Prater teaches that said arithmetic mode is set to pass unaltered said at least one injection color function (col 5, lines 43-60).

With regard to claim 4, Prater teaches that said arithmetic mode is set to yield a color complement of said at least one injection color function at said second luminance value (col 5, lines 43-60).

With regard to claim 5, Prater differs from claim 5, in that he does not teach an alpha function for said at least one injection color function.

Hamburg discloses a method for blending in the presence of different transparencies, in that he teaches selecting an alpha function for said at least one injection color function {e.g. opacity} (Figure 2, Table 2, col 7, lines 21-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Prater to include selecting an alpha function for said at least one injection color function taught by Hamburg to determine proper opacity for compositing graphic elements (col 3, lines 35-67 & col 1, lines 1-17).

With regard to claims 6, 7 & 8, Prater differs from the claims, in that he does not teach said alpha function.

Hamburg teaches that said alpha function returns a constant (col 1, lines 29-35); said alpha function returns a random value within a range (col 1, lines 29-35), and said alpha function returns a random value outside a range (Figure 2, col 8, lines 29-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Prater to include said alpha function returns a constant; returns a random value within a range, and returns a random value outside a range taught by Hamburg to determine proper opacity for compositing graphic elements (col 3, lines 35-67 & col 1, lines 1-17).

With regard to claims 9, 10 & 11, Prater differs from the claims, in that he does not teach said pattern function returns an assertion for injection that is random.

Knoll teaches that said pattern function returns an assertion for injection that is random {e.g. the number of candidate colors generated for each target pixel can vary; and the system can select one of the candidate color independent of the target pixel location, such as randomly} (col 7, lines 42-51); said pattern function returns an assertion for injection that repeats a pattern (col 4, lines 5-17), and said pattern function returns an assertion for injection that utilizes a texture map (Figure 4, col 4, lines 38-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Prater to include said pattern function returns an assertion for injection that is random; said pattern function returns an assertion for injection that repeats a pattern and said pattern function returns an assertion for injection that utilizes a texture map taught by Knoll to allow target palette to have

arbitrary structure and to avoid neighborhood effects of other target pixels (col 1, lines 64-67 & col 2, lines 1-10).

With regard to claim 12, the structure elements of method claim 1 perform all steps of system claim 12. Thus claim 12 is rejected under 103(a) for the same reason discussed in the rejection of claim 1.

With regard to claim 13, the structure elements of method claim 2 perform all steps of system claim 13. Thus claim 13 is rejected under 103(a) for the same reason discussed in the rejection of claim 2.

With regard to claim 14, the structure elements of method claim 5 perform all steps of system claim 13. Thus claim 13 is rejected under 103(a) for the same reason discussed in the rejection of claim 5.

### **Correspondence Information**

6. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).




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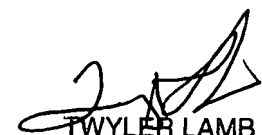
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is (571) 270-1120. The examiner can normally be reached on Monday to Friday, from 8:30 AM – 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Kau  
Patent Examiner  
Division: 2625  
May 23, 2007



TWYLER LAMB  
SUPERVISORY PATENT EXAMINER